The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte DANIEL M. KINZER

Appeal No. 2004-1428
Application 09/292,186

ON BRIEF

Before BARRETT, OWENS, and BARRY, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

ON REQUEST FOR REHEARING

The appellant requests rehearing of our decision mailed on September 27, 2004 wherein we affirmed the rejection of claims 1, 3-6, 8-13 and 20-22 under 35 U.S.C. § 103 over Floyd '716.[1]

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[1] The appellant requests that we consider entry and review of the reply brief (request, first and second pages). Nonentry of the reply brief is a petitionable matter and, therefore, is not before us on appeal. *See* MPEP § 1002.02(c)(8)(8th ed. rev. 2, May 2004). Consequently, we do not consider the reply brief.

The appellant argues that the Floyd '716 device is structurally different than the appellant's device (request, first to second pages)[2]. That argument is not included in the appellant's brief. "Any arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences, unless good cause is shown." 37 CFR § 1.192(a)(1997). Because good cause has not been shown, we do not consider the argument at this time.

In response to our statement that the appellant has not provided evidence that one of ordinary skill in the art would have been unable, through no more than routine experimentation, to adjust for the difference between the mobility of electrons and holes (decision, page 6), the appellant argues that such evidence should be inferred and apparent from the application, cited prior art references and literature in the field (request, second to third pages). The appellant, however, has not pointed out any evidence which shows that more than routine experimentation would have been required for one of ordinary skill in the art to adjust for the difference between the mobility of electrons and holes. The appellant argues that there

[2] The pages of the request for rehearing are not numbered.

are differences in the circuitry of p-channel and n-channel devices (rehearing, second page), but the appellant has not provided evidence that any such differences would have caused the experimentation required by one of ordinary skill in the art to adjust for the difference between the mobility of electrons and holes to be more than routine.

The appellant argues that "[t]he Opinion suggests that Appellant should have compared the P-channel type MOSFET claimed in the present invention to other N-channel MOSFETS for performance, such as the N-channel MOSFET disclosed by Floyd '716" (request, third page). Our statement was that the appellant should have compared the claimed invention to the Floyd '716 n-channel MOSFET (not to other n-channel MOSFETs such as that of Floyd '716). As stated in our opinion, "[i]t is undisputed that Floyd '716 discloses a trench-type power MOSFET which differs from that claimed in the appellant's claims 1 and 9 only in that the Floyd '716 MOSFET is an n-channel MOSFET (n-p-n polarity) whereas the appellant's MOSFET is a p-channel MOSFET (p-n-p polarity)" (page 3). Thus, the comparison should have been between the claimed invention and the Floyd '716 MOSFET which differs in that one respect. The appellant argues that "it would be inappropriate to compare P-channel devices with N-

channel devices because of their significantly different principles of operation, such as the different modes of operation for the devices, and because of the extra circuitry needed to properly operate an N-channel type device, and the known characteristic of higher on resistance for P-channel type devices" (request, third page). The claimed structure differs from that of Floyd '716 only in the above-discussed polarity reversal. Hence, the proper comparison would have been between the claimed structure and that of Floyd '716.

The appellant argues that one of ordinary skill in the art would not have expected that removing the p-type epitaxial layer from the prior art device (figure 1 of the appellant's specification) would have produced a device having reduced on resistance and an equivalent voltage rating (request, third and fourth pages). The appellant's specification discloses that the claimed device produces a reduced threshold voltage (page 7, lines 29-30), not an "equivalent" voltage rating. Regardless, the rejection is not based on removing the p-type epitaxial layer from the prior art device discussed by the appellant but, rather, is based on reversing the polarity of the Floyd '716 device from n-p-n to p-n-p. As stated in our decision (page 9), the resulting device would not have the prior art p-type epitaxial layer discussed by the appellant. Moreover, the Floyd '716 n-p-n

MOSFET has a p-epitaxial layer grown directly on the substrate (col. 2, lines 25-28). Hence, when the polarity is reversed an n-epitaxial layer would be grown directly on the substrate. This layer would be the same as the appellant's n-epitaxial layer grown directly on the substrate and, therefore, like the appellant's n-epitaxial layer, would have a constant concentration along its full length (specification, page 7, lines 20-26). Consequently the device, like that of the appellant, would provide a low threshold voltage (specification, page 7, lines 26-27).

The appellant argues that the low threshold voltage would have been unexpected by one of ordinary skill in the art (request, third page), but the appellant has not provided evidence in support of that argument. The argument by the appellant's counsel cannot take the place of evidence. *See In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984); *In re Payne*, 606 F.2d 303, 315, 203 USPQ 245, 256 (CCPA 1979); *In re Greenfield*, 571 F.2d 1185, 1189, 197 USPQ 227, 230 (CCPA 1978); *In re Pearson*, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

We have considered the appellant's request for reconsideration of our decision but, for the above reasons, we decline to make any change to the decision.

DENIED

LEE E. BARRETT)
Administrative Patent Judge)
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TERRY J. OWENS)
Administrative Patent Judge) BOARD OF PATENT APPEALS AND INTERFERENCES
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LANCE LEONARD BARRY)
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